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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,724	06/08/2001	Georgios Ginis	STFUP018	8945
40581	7590	05/31/2006	EXAMINER	
CRAWFORD MAUNU PLLC			CORRIELUS, JEAN B	
1270 NORTHLAND DRIVE, SUITE 390				
ST. PAUL, MN 55120			ART UNIT	PAPER NUMBER
			2611	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/877,724

Applicant(s)

GINIS ET AL.

Examiner

Jean B Corielus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 61 and 63-87 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 63-87 is/are allowed.
- 6) ☒ Claim(s) 61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/6/06-4/17/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The objection to claims 68, 69, 76, 77, 84 and 85 has been withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art fig. 3 in view of Thomson et al US Patent No. 6,498,820.

Applicant admitted prior art fig. 3 (note that applicants describes fig.1-fig.6 as prior art, it is assumed that those figures are prior art) discloses a method and apparatus for reducing noise comprising having a plurality of communication lines see fig. 3 on which signals are transmitted and received, the signals being affected by interference during transmission, each of the communication lines having at least one transmitter 310 and at least one receiver, 311, the apparatus comprising: means 314 for creating a model of the line, signal and interference characteristics of the communication lines; and means 315 for processing signals using the model (output of device 314) to remove interference from the signals. However, the admitted prior art does not teach that the model is based on the actual characteristics of the lines.

Thomson et al teaches an interference cancellation method and device in which a

model is created based on the characteristics of the line see figs. 3-4, col. 6, lines 60-64, col. 7, lines 12-17, lines 28-44, and col. 9, lines 42-51. Given that fact, it would have been obvious to one skill in the art to modify applicant's admitted prior art by creating the model based on the actual characteristics of the line in order to modify the model to account for changes in the characteristics of the line so as to cancel more effectively interference present in the line.

Allowable Subject Matter

4. Claims 63-87 are allowed.

Response to Arguments

5. Applicant's arguments filed on 4/17/06 have been fully considered but they are not persuasive. It is alleged that the office action does not explain how one skill in the art would be led by the prior art to modify fig. 3 in order to perform the claimed function. However, it is noted that the office action provides a clear motivation that would have led one skill in the art to combine the teaching of the admitted prior art with the teaching of Thompson in order to perform the claimed. It is further alleged that blocks 315-1 and 316-1 does not operate on multiple lines to create the claimed model. Note that the examiner considers circuit blocks 314-1 to 314-n as being encompassed by one circuit block i.e. a circuit block 314, likewise examiner considers 315-1 to 315-n as being encompassed by one circuit block, i.e. a circuit block 315, circuit blocks 316-1 to 316-n is considered as being encompassed by one circuit block, i.e. a circuit block 316.

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Hence, circuit blocks 315 (315-1 to 315-n) and 316 (316-1 to 316-n) operate on multiple lines 312 i.e. 312-1 to 312-n. In addition, applicant argues that the teaching of fig. 3 is also distinguishable because the structure “means” is different than the asserted prior art. However, such difference is not clearly shown. The specification clearly uses the same components (means) in both the prior art and in the invention. See for instance components of fig. 3 and fig. 7. Note that the response to the argument section 9 of the last office action, dated January 10, 2006, did not recognize that applicant’s fig. 7 provides supporting structure for the claimed subject matter rather such section of the comment simply inferred that applicant’s comment (dated 11/18/05) was inconsistent with the disclosure. It is further asserted that 715-716 corresponds to the means as recited in claim 61 and that the specification pages 20-22 support such assertion. However, it is noted that such section of the specification does not refer to any means or structure to “**create a model** of the line signal and interference characteristics”. Such section of the specification only teaches that “line and signal characteristics for each line can **be acquired** and provided to module 715”. “**Creating a model** of the line signal and interference characteristics” is not the same as “**acquiring** line and signal characteristics for each line”. Further clarification is required. For the sake of argument, applicant’s claimed “means” (fig. 7) uses identical circuit components as the prior art fig. 3, in other words, structure 315 corresponds to structure 715 and structure 316 corresponds to structure 716.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is 571-272-3020. The examiner can normally be reached on Maxi-Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jean B Corrielus
Primary Examiner
Art Unit 2611

5-27-06